

## ABSTRACT

A multiprocessor system is provided that comprises a plurality of processor units coupled together via a backplane and a timestamp distribution system. The timestamp distribution system provides a first time signal to the plurality of processor units over the backplane. The timestamp distribution system comprises a first timestamp distributor for generating the first time signal and a first timestamp communication bus on the backplane for transporting the first time signal from the timestamp distributor to the plurality of processor units. The first time signal comprises a first time data word that is transmitted at a periodic rate wherein the first time data word does not change each time the first time signal is transmitted.

44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1